

REMARKS/ARGUMENTS

This Amendment is responsive to the Office Action of August 9, 2007, setting forth a shortened three month statutory period for reply expiring on November 9, 2007.

Claims 28-37 are pending in the application with claim 28 being independent. New claims 38-44 have been added with claim 38 being independent. In brief review, in the Office Action, claims 28-35 and 37 have been rejected as being anticipated by U.S. Patent No. 3,384,704 to Vockroth ("Vockroth"). Further, claims 28 and 36 have been rejected as being anticipated by U.S. Patent No. 2,988,727 to Berndt ("Berndt").

By this Amendment, claims 28, 29, 36 and 37 have been amended. Claims 38-44 are new.

DRAWINGS

The Office Action rejected the drawings as failing to include the reference signs "302" and "914" as mentioned in the description. Applicant has amended the specification to remove reference to "914." Applicant further submits a replacement page for Fig. 3 wherein the figure has been amended to change the reference number "204" (indicating an arrow) to the number "304." Reference number "304" designates an arrow in Fig. 3 illustrating decreasing volume within the collet housing resulting from pulling the collet into the housing in the direction of the arrow. Reference number "302" designates an arrow in Fig. 3 to show the direction of tension that is applied to the core. Thus, Applicant believes that the above correction should place the drawings in condition for acceptance and respectfully requests the same.

SPECIFICATION

The Office Action objected to the disclosure because reference numbers "302" and "304" are both used to describe "arrow". Applicant has amended paragraph [0066] to clarify use of the

arrow "304" to describe compressive forces on the collet. In particular, "[t]he collet 202 in turn applies compressive forces on the composite core 101 of the cable 100 because of the decreasing volume within the collet housing 204 in the direction of arrow 304. In addition, Fig. 3 has been amended to correct mislabeling of the arrow in the collet housing as reference number "204." Applicant believes that the above correction addresses the objection in the Office Action.

Applicant further amended paragraph [0043] based on Figure 2b and Fig. 3. In particular, paragraph [0043] is amended to recite in part: "In a further embodiment, to facilitate distribution of force along the length of the lumen 214, the nose of the collet 202 is designed to extend beyond the end of the collet housing 204, as shown in Fig. 2b." The extension of the nose of the collet 202 described in amended paragraph [0043] is clearly depicted in Fig. 2b and Fig. 3. It is an inherent property of a distributed force that passage of the collet nose beyond the end of the collet housing functions to distribute the frictional force along the length of the core.

Applicant further amended paragraph [0066]. In particular, "in one embodiment, the compression screw 206 is threaded into the collet housing 204 and then tightened [[914]], which causes the compression screw to press presses on the collet 202 and seat the collet 202 further into the funnel shaped collet housing 204. The collet 202 in turn applies compressive forces on the composite core 101 of the cable 100 because of the decreasing volume within the collet housing 204 in the direction of arrow 304." Support for seating the collet further into the funnel shaped collet housing may be found in paragraph [0040], namely, "the mating with the compression element 206 allows the initial compression of the collet 202 against the composite core 101 by driving the collet 202 down into the collet housing 204." Support for "decreasing volume within the collet housing 204" can be found in paragraph [0043], namely, "because of the decreasing volume within the collet housing 204."

Paragraph [0034] has been amended to correct a typographical error.

CLAIM REJECTIONS – 35 U.S.C. §102

The Office Action rejected claims 28-35 and 37 as anticipated by Vockroth. The Office Action also rejected claims 28 and 36 as anticipated by Berndt. The rejections under each reference are respectfully traversed.

Vockroth Fails To Teach or Suggest the Limitations of Claims 28-35, or 37

Independent claim 28 as amended recites:

A fitting for a cable having a composite core comprising: a collet comprised of one or more sections that form a truncated conical shape, the shape of the collet comprising an outer diameter that increases from a first end to a second end creating an outside slope to slide within a collet housing, the collet defining a concentrically oriented lumen, the lumen having a length and a substantially constant interior radius along the length to receive the composite core, lumen having a cross section and length to fit a cross section and length of composite core, said lumen configured and dimensioned to frictionally engage the composite core for the length of the lumen; and a collet housing having a first open end to allow the collet to fit into the collet housing and a second open end having a smaller internal diameter than the first open end, the housing having a funnel-shaped interior configured and dimensioned to fit the outside slope of the collet to enable the collet to slide into the collet housing without allowing the collet to be forcibly pulled through the second open end of the collet housing.

Vockroth arguably teaches gripping jaws that bite into the core. In particular, Jaws 6 which are conical shaped and segmented by a longitudinal cut along their centerline have an outside taper 6' to match taper 16 on insert 4. Buttress or thread-like serrations 18 are formed in passageway 16 of insert 4, which serrations 18 serve to grip core S of cables C when the connector is in use.

Vockroth, col. 2, lines 24-28 (emphasis added).

In addition, "[t]he tapers 6' and 16 between insert 4 and jaws 6 urge the jaws into

gripping engagement with core S." Vockroth, col. 2, lines 60-62. Further, Figs. 2-4 show the serrations of the jaws actually biting into the core to achieve gripping action. Claim 1 of Vockroth recites in part, "said core wires causing said gripping edges to bite into said core wires" (emphasis added). Accordingly, the serrations of the jaws are understood to bite into the core.

As indicated in amended claim 28, "the collet defining a concentrically oriented lumen, the lumen having a length and a substantially constant interior radius along the length to receive the composite core, said lumen configured and dimensioned to frictionally engage the composite core for the length of the lumen" (emphasis added). Because the lumen in amended claim 28 is configured and dimensioned to frictionally engage the core, the gripping engagement of the serrated section of jaws 6 in Vockroth fails to teach or suggest the act of frictional engagement of the collet and lumen as recited in claim 28. The two acts are entirely different and require substantially different structure to perform each operation.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of the claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440 (Fed. Cir. 1989). Accordingly, Vockroth does not teach or disclose a collet capable of performing the functional limitations noted. For at least this reason, claim 28 is believed to be allowable over the art of record.

Vockroth arguably further teaches a gripping assembly that is held in place by annular groove 10. For core insertion, insert 4' having a pair of jaws 6' inserted within is pushed "against the bias of spring 8." Vockroth, col. 2, lines 43-44.

During insertion, the jaws 6 are urged longitudinally in passageway 16 against the bias of spring 8 which causes the jaws to spread radially to receive the core S. After the cable is inserted, the spring 8 urges jaws 6 toward the annular groove 10.

Vockroth, col. 2, lines 55-58. Accordingly, grooves 10 are understood to hold the insert 4 and jaws 6 in place in order to facilitate gripping engagement between jaws 6 and the core S.

As indicated in amended claim 29, the second open end of the collet housing is configured and dimensioned to allow the first end of the collet to extend beyond the second end of the collet housing to facilitate distribution of frictional force between the core and the lumen (emphasis added). Vockroth does not teach or disclose a collet having the limitations as noted. For at least this reason, claim 29 is believed to be allowable over the art of record.

Because dependent claims 29-35 and 37 further limit claim 28, these dependant claims are also believed to be allowable. For example, and without limitation, Vockroth is not understood to teach the following limitations: "wherein the second open end of the collet housing is configured and dimensioned to allow the first end of the collet to extend beyond the second end of the collet housing to facilitate distribution of compressive forces" as recited in dependent claim 29; "wherein the fitting further comprises an implement that engages with the first open end of the collet housing to enable connection to a second collet housing" as recited in dependent claim 30; "wherein the implement that engages with the first open end of the collet housing acts to drive the collet into the housing and initiate compression of the collet against the composite core" as recited in dependent claim 31; "wherein the collet housing comprises a rigid material that enables the collet housing to retain its shape when tension is applied to the composite core and the collet is pulled into the collet housing" as recited in claim 32; "wherein the collet comprises at least two sections of equal size and shape that fit together to form the collet" as recited in claim 33; "wherein the collet comprises more than one section, each section

identical in size and shape that fit together to form the collet" as recited in claim 34; "wherein the fitting further comprises a connecting element that couples two or more fittings together to form a splice" as recited in claim 35; and "wherein the fitting further comprises an aluminum housing that couples with one or more fittings to electrically connect a conductor of a first cable with a conductor of a second cable" as recited in claim 37.

Berndt Fails to Teach or Suggest the Limitations of Claims 28 and 36

Berndt arguably teaches jaws for biting contact with the wire or cable. In particular, "the gripping jaws are connected or joined together at their forward ends as at 21 and each jaw is separated for the remainder of its length whereby to permit free movement of the jaws into biting contact with the wire or cable to be gripped thereby." Berndt, col. 2, lines 50-54 (emphasis added). In addition:

The operation results in cable 28 becoming operatively associated with the gripping member and as tension is applied to cable 28, the gripping member is again caused to contact the tapering walls of end portion 14 so that the serrated edges or teeth 30 of the gripping jaws are caused to bite into the cable, holding the same joined to the connector.

Berndt, col. 3, lines 12-19 (emphasis added).

As presently understood, Berndt further teaches that the gripping jaws are designed to prevent movement of the core:

Another object is to provide a gripping member of the character described that can be stamped from a strip of metal and then bent into circular form to comprise the completed article, which can be manufactured in this manner within very close tolerances, and wherein one or more of the gripping jaws are provided with fingers at the rear end thereof and which are bent inwardly to form a stop for the entering wire or cable so that the gripping jaws will be properly positioned with respect thereto.

Berndt, col. 1, lines 35-45 (emphasis added).

Accordingly, the jaws in Berndt, much like the jaws of Vockroth, are understood to "bite into" the wires or cable. In contrast, the lumen of the collet in claim 28 has a constant interior radius in order to frictionally engage the core without biting into the core. The action of "biting into a cable" does not teach and certainly fails to even suggest the act of frictionally engaging a cable or similar structure. Because the jaws in Berndt are understood to "bite into" the wires, Berndt fails to teach or even suggest the frictional engaging action of the lumen in amended claim 28.

Because dependent claim 36 further limits independent claim 28, it is also believed to be allowable. For example, and without limitation, Berndt is not understood to teach the following limitations: "wherein the fitting further comprises a connector for operably engaging the fitting to a structure to form a dead-end" as recited in claim 36.

NEW CLAIMS 38-44

New claims 38-44 have been added. Applicant believes that no new matter is added with these new claims. For similar reasons argued with respect to claims 28-37, the new claims are also believed to be allowable over the art of record.

DOUBLE PATENTING

Claims 28-37 are pending in the application and claims 38-44 are new. Claims 28-37 are rejected on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 32 and 37 of U.S. Patent No. 7,041,909 in view of Vockroth. A terminal disclaimer in compliance with 37 C.F.R. 1.321(c) is filed herewith. Accordingly, Applicant believes that the double patenting rejection is overcome. As such, Applicant believes that the application is in condition for allowance.

CONCLUSION

In view of the above, claims 28-44 are believed to be allowable and the application is in condition for allowance.

No additional fees are believed to be required. If the Examiner has any questions regarding this Amendment, please contact the undersigned at 303-223-1178.

Respectfully submitted,

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